

Anti-VE-Cadherin/CD144 Antibody
Catalog # ABO11385**Specification**

Anti-VE-Cadherin/CD144 Antibody - Product Information

Application	WB, IHC-P
Primary Accession	P33151
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Cadherin-5(CDH5) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-VE-Cadherin/CD144 Antibody - Additional Information

Gene ID 1003

Other Names

Cadherin-5, 7B4 antigen, Vascular endothelial cadherin, VE-cadherin, CD144, CDH5

Calculated MW

87528 MW KDa

Application Details

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Rat, Mouse, By Heat
Western blot, 0.1-0.5 µg/ml, Human

Subcellular Localization

Cell junction . Cell membrane ; Single-pass type I membrane protein . Found at cell-cell boundaries and probably at cell-matrix boundaries. KRIT1 and CDH5 reciprocally regulate their localization to endothelial cell-cell junctions.

Tissue Specificity

Endothelial tissues and brain.

Protein Name

Cadherin-5

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of human VE Cadherin(766-784aa RFKMLAELYGSDPREELLY), different from the related mouse and rat

sequences by three amino acids.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Anti-VE-Cadherin/CD144 Antibody - Protein Information

Name CDH5 ([HGNC:1764](#))

Function

Cadherins are calcium-dependent cell adhesion proteins (By similarity). They preferentially interact with themselves in a homophilic manner in connecting cells; cadherins may thus contribute to the sorting of heterogeneous cell types (PubMed: [21269602](http://www.uniprot.org/citations/21269602)). This cadherin may play an important role in endothelial cell biology through control of the cohesion and organization of the intercellular junctions (By similarity). It associates with alpha-catenin forming a link to the cytoskeleton (PubMed: [10861224](http://www.uniprot.org/citations/10861224)). Plays a role in coupling actin fibers to cell junctions in endothelial cells, via acting as a cell junctional complex anchor for AMOTL2 and MAGI1 (By similarity). Acts in concert with KRIT1 and PALS1 to establish and maintain correct endothelial cell polarity and vascular lumen (By similarity). These effects are mediated by recruitment and activation of the Par polarity complex and RAP1B (PubMed: [20332120](http://www.uniprot.org/citations/20332120)). Required for activation of PRKCZ and for the localization of phosphorylated PRKCZ, PARD3, TIAM1 and RAP1B to the cell junction (PubMed: [20332120](http://www.uniprot.org/citations/20332120)). Associates with CTNND1/p120-catenin to control CADH5 endocytosis (By similarity).

Cellular Location

Cell junction, adherens junction. Cell membrane; Single-pass type I membrane protein. Cytoplasm {ECO:0000250|UniProtKB:P55284}. Note=Found at cell-cell boundaries and probably at cell-matrix boundaries. KRIT1 and CDH5 reciprocally regulate their localization to endothelial cell-cell junctions

Tissue Location

Expressed in endothelial cells (at protein level) (PubMed:27338829). Expressed in the brain (PubMed:2059658)

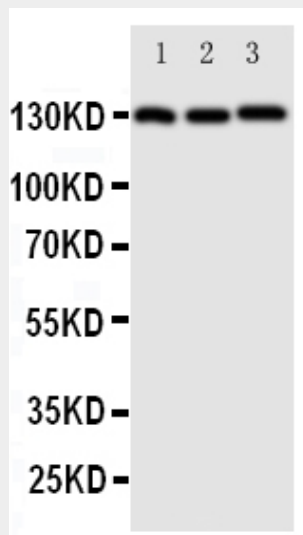
Anti-VE-Cadherin/CD144 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

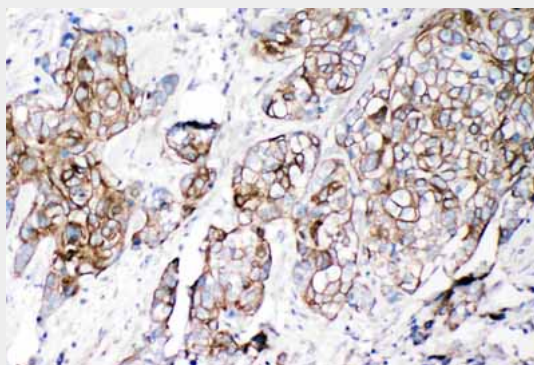
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)

- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

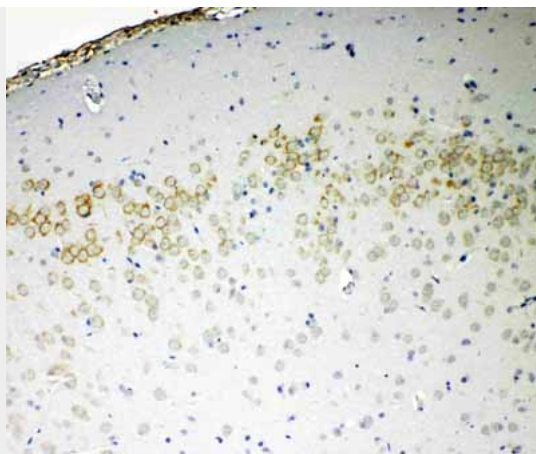
Anti-VE-Cadherin/CD144 Antibody - Images



Anti-VE Cadherin antibody, ABO11385, Western blotting All lanes: Anti VE Cadherin (ABO11385) at 0.5ug/ml
Lane 1: A549 Whole Cell Lysate at 40ug
Lane 2: HELA Whole Cell Lysate at 40ug
Lane 3: MCF-7 Whole Cell Lysate at 40ug
Predicted bind size: 87KD
Observed bind size: 130KD



Anti-VE Cadherin antibody, ABO11385, IHC(P) IHC(P): Human Lung Cancer Tissue



Anti-VE Cadherin antibody, ABO11385, IHC(P)IHC(P): Rat Brain Tissue

Anti-VE-Cadherin/CD144 Antibody - Background

CDH5(Cadherin 5), also known as VE-cadherin, is a type of cadherin. It is encoded by the human gene CDH5. Kremmidiotis et al.(1998) mapped the human CDH5 gene to 16q22.1 using somatic cell hybrid panels. Functioning as a classic cadherin by imparting to cells the ability to adhere in a homophilic manner, the protein may play an important role in endothelial cell biology through control of the cohesion and organization of the intercellular junctions. Therefore it was concluded that VE-cadherin serves the purpose of maintaining newly formed vessels.